

The opinion in support of the decision being entered today was not written
for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte BEATRIX KOTTWITZ, HORST-DIETER SPECKMANN,
KARL-HEINZ MAUER and CHRISTIAN NITSCH

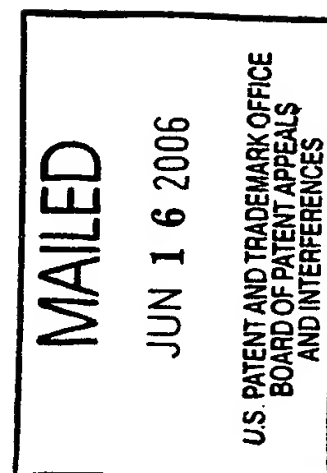
Appeal No. 2005-2078
Application No. 09/701,751

ON BRIEF

Before WALTZ, KRATZ and JEFFREY T. SMITH, Administrative Patent Judges.
JEFFREY T. SMITH, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1, 12-
18, 20 and 21, all of the pending claims. We have jurisdiction under 35 U.S.C. § 134.



BACKGROUND

The present invention relates to a method of enhancing the cleaning performance of detergent solutions by adding an enzyme and oxidizing agent to the solutions. According to Appellants, the invention is based on the discovery that combination of a certain naturally occurring α -amylase with a certain peroxidic oxidizing agent unexpectedly leads to improved detergent performance. (Brief, p. 2)

Representative claims 1 and 20, as presented in the appendix to the Brief, appear below:

1. A detergent comprising
 - a) a naturally occurring α -amylase from *Bacillus amyloliquefaciens*; and
 - b) at least one alkali metal percarbonate.

20. A method of increasing the cleaning performance of a detergent in washing and cleaning solutions, the method comprising the step of adding:
 - a) α -amylase from *Bacillus amyloliquefaciens*; and
 - b) at least one alkali metal percarbonate, to said detergent.

The Examiner cited the following reference in rejecting the appealed claims:

Herbots et al. (Herbots)	WO 98/07818	Feb. 26, 1998
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The Examiner entered the following rejection (Answer, pp. 3-5):

Claims 1, 12-18, 20 and 21 stand rejected under 35 U.S.C. § 103(a) as obvious over Herbots.

Rather than reiterate the conflicting viewpoints advanced by the Examiner and the Appellants regarding the above-noted rejection, we make reference to the Answer (mailed March 25, 2004) for the Examiner's reasoning in support of the rejections, and to the Brief (filed January 20, 2004) and the Reply Brief (filed April 26, 2004) for the Appellants' arguments there against. We affirm the § 103 rejection of claims 1, 12-18, 20 and 21. Our reasons follow.

Appellants assert that for purposes of appeal that the claims stand or fall together. (Brief, p. 3). Accordingly, all of the claims will stand or fall together. We select claim 1 as representative of claims on appeal.

OPINION

The Examiner has determined that the claimed invention would have been obvious to a person of ordinary skill in the art from the teaching of Herbots. In particular, the Examiner determined that the instant claims differ from the reference by reciting a detergent composition comprising one species of α -amylase enzyme derived from *Bacillus amyloliquefaciens*. However, the Examiner concluded that it would have been obvious to one having ordinary skill in the art at the time the invention was made to make a detergent composition and to select any known species of the amylase genus taught by reference, including the α -amylase of the claims. The Examiner

reasoned that an ordinary artisan would have the reasonable expectation that specie of the genus would have similar properties and thus, the same utility. (Answer, pp. 3-4).

Appellants argue that "whether one of skill would have expected the claimed enzyme to work is not germane where there was no motivation to select it in the first place." (Brief, p. 8).

Appellants' arguments are unpersuasive. A reference is available for all that it teaches to a person of ordinary skill in the art. *In re Inland Steel Co.*, 256 F.3d 1354, 1356, 60 USPQ2d 1396, 1401, 1402 (Fed. Cir. 2001); *Merck & Co. v. Biocraft Labs., Inc.*, 874 F.2d 804, 807, 10 USPQ2d 1843, 1846 (Fed. Cir. 1989) ("the fact that a specific [embodiment] is taught to be preferred is not controlling, since all disclosures of the prior art, including unpreferred embodiments, must be considered.") (quoting *In re Lamberti*, 545 F.2d 747, 750, 192 USPQ 278, 280 (CCPA 1976)). Herbots disclosure that α -amylase enzymes (generally) are suitable for use in the described detergent compositions would not detract from the selection of a particular specie of α -amylase enzyme. This is especially true in this case because the claimed α -amylase enzyme is used for the identical purpose taught by the prior art. See *In re Corkill*, 771 F.2d 1496, 1500, 226 USPQ 1005, 1008 (Fed. Cir. 1985) (obviousness rejection of claims affirmed in light of prior art teaching that "hydrated zeolites will work" in detergent formulations, even though "the inventors selected the zeolites of the claims from among 'thousands'

of compounds"); *In re Susi*, 440 F.2d 442, 445, 169 USPQ 423, 425 (CCPA 1971) (obviousness rejection affirmed where the disclosure of the prior art was "huge, but it undeniably include[d] at least some of the compounds recited in appellant's generic claims and it is of a class of chemicals to be used for the same purpose as appellant's additives").

Appellants also argue that EP0684304 and EP0867504 are evidence that would have led one of skill in the art to conclude that combining α -amylases with the recited peroxide oxidizing agents would not have been successful. (Brief, p. 8).

We do not agree. The teachings of EP0684304 and EP0867504 do not detract from the teachings of the Herbots. The references describe genetic modifications made to α -amylases enzymes. Herbots includes in the description of suitable enzymes both naturally occurring and the genetically modified variety such as disclosed by the EP references. (Page 11). We note EP0867504 discloses that *Bacillus amyloliquefaciens* is a common commercially available source for α -amylase. (Page 2, ll. 14-19). Thus, a person of ordinary skill in the art would have recognized that the use of naturally occurring and the genetically modified α -amylases enzymes derived from *Bacillus amyloliquefaciens* were suitable for detergent compositions. Herbots teaches the combination of amylase enzyme and an oxidizing agent will function together in a

detergent composition. Herbots expressly discloses the suitability of using a bleaching agent (percarbonate) in the detergent composition. (Page 35).

Appellants assert that the specification contains comparative data demonstrating both the significance of the naturally occurring α -amylase derived from *Bacillus amyloliquefaciens* as compared to several well-known amylases of natural and synthetic (genetically modified) origin. Specifically, Appellants assert:

[A]ny prima facie obviousness of the claims is overcome by the comparative testing presented in applicants' examples 1 and 2. Detergent compositions according to the invention comprising a naturally occurring α -amylase derived from *Bacillus amyloliquefaciens* were compared to detergent compositions comprising several well-known amylases of natural and synthetic (genetically modified) origin. Indeed, applicants tested inventive compositions against compositions comprising some of the very enzymes that Herbots in its examples saw no reason to specify, including Termamyl® 60T, a naturally occurring amylase derived from *Bacillus lentus*, Duramyl® and PurafectOxAm®, genetically modified amylases, and Fungamyl®, an amylase of fungal origin. In applicants' tests, detergent compositions comprising the naturally occurring α -amylase derived from *B. amyloliquefaciens* clearly outperformed otherwise identical detergent compositions containing these other α -amylases. Thus, any *prima facie* obviousness based on Herbots is rebutted by applicants' evidence of unexpected and superior cleaning performance according to the invention.. (Brief, pp. 9-10).

Appellants' evidence is not persuasive for several reasons. Appellants present only conclusory statements as to the performance of the comparative detergent compositions. Appellants have not presented data in the specification to support the conclusory statement. Thus, the record is unclear how Appellants arrived at the

determination that the examples representative of the claimed invention provided superior wash performance. The burden is on Appellants to establish why the comparative data establishes unexpected results. *See In re Klosak*, 455 F.2d 1077, 1080, 173 USPQ 14, 16 (CCPA 1972). Appellants must also explain why the showing is commensurate in scope with the claimed subject matter. *See In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980). These showings are especially relevant in this appeal where Herbots discloses similar detergent compositions containing amylase enzymes. The comparative examples in the specification are limited to only a relatively few examples using specific amounts of the claimed enzyme and the claims are not so limited. *See also In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990). Finally, we note that the discussion of the examples in the specification indicates that the alleged superior results are not limited to the claimed composition. (The specification indicates that similar results are achieved when the composition contains a perborate component in place of the claimed percarbonate. (Specification, pp. 25 and 26).

CONCLUSION

Based on our consideration of the totality of the record before us, having evaluated the prima facie case of obviousness in view of Appellants' arguments and evidence, we conclude that the subject matter of claims 1, 12-18, 20 and 21 would have been obvious to a person of ordinary skill in the art from the teachings of the Herbots reference. *See In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

The § 103 rejection of claims 1, 12-18, 20 and 21 over Herbots is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv)(2004).

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